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Sector: Information Technology

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VOCATIONAL EDUCATIONAL QUALIFICATION FRAMEWORK
(Sector -Information Technology -Specialization – Software Development)
NVEQF/IT/SD

S.No.	Certificate Level	Vocational Hours
1.	Level-I	200 hrs
2.	Level-II	250 hrs
3.	Level-III	350 hrs
4.	Level-IV	350 hrs
5.	Level-V	500 hrs
6.	Level-VI	550 hrs
7.	Level-VII	750 hrs

Certificate Level- I

Digital Literacy:
- Understand the fundamentals of computing
- Identify the components of a computer
- Identify the steps for starting & shutting down a computer
- Use a mouse & keyboard
- Understanding the Operating System and features
- Manage files & folders and Perform basic file operations
- Connect to the Internet
- Browse web pages
- Navigate websites
- Creating and using email
- Use search engines
- Understand digital technologies media devices
- Identify measures to protect a computer against natural and human threats

Word Processing:
- Design, create and modify a range of business documents
- Displaying Different Views of a Document
- Creating and Saving a Document
- Selecting, Modifying, Finding and Replace Text
- Align Text Using Tabs,
- Display Text as List Items
- Apply Borders and Shading
- Preview a document, and adjust its margins and orientation.
- Insert & Format a Table
- Convert Text to a Table
- Check Spelling and Grammar
- Use the Thesaurus
- Print with default or custom settings

Spreadsheet:
- Construct a spreadsheet and populating Cell Data
- Customize the Interface
- Formatting Cells - Search Worksheet Data, Changing Fonts
- Modify Rows and Columns
- Managing Worksheets and Workbooks
- Applying Formulas and Functions
- Inserting Currency Symbols
- Merging cells
- Spell Check a Worksheet
- Add Borders and Colour to Cells
- Printing options to output a chart, worksheet, workbook, according to specifications

Presentation:
Getting started with Presentations
- Identify elements of the user interface, view a presentation,
- save a presentation, use Microsoft PowerPoint help
- Creating a Basic Presentation,
- Select a presentation type, enter text, edit text, format text placeholders, add slides to a presentation, arrange slides, work with themes
- Formatting text on slides, apply character styles, format paragraphs
- Adding Graphical Objects to a presentation, Insert images into a presentation, add shapes
- Adding visual style to text in a presentation

E-Mail Messaging:
- Getting Started with Messaging, identify the user interface, identify the outlook ribbon, identify the tabs and commands in the message form, using help
- Creating an email message, formatting, check spelling and grammar, attach a file, enhance an email
- Sending and receiving email messages, read, reply to and forward, delete and print an email message
- Organizing Email Messages, move email messages into folders, open and save an attachment
- Managing contacts, add a contact, sorting and finding contacts, find the geographical location of a contact, update contacts

Language:
One Optional Language from Japanese, Mandarin, French, German (example of Japanese included here)
Japanese – Introduction, Greetings, Initiation to Hiragana, Katakana and Kanji, Counting, Time, Seasons, Activities, etc.

Certificate Level- II

Digital Literacy:
- Exploring OS Accessibility features
- Going Wireless and setting up devices
- Networking Fundamentals
- Use instant messaging
- Perform online transactions
- Understand security settings
- Identify best practices for securing online and network transactions
- Identify measures to protect privacy
- Create & publish web pages

Word Processing:

- Modify the Layout of a Paragraph – Tabs, Headers, Footers
- Apply Styles & Manage Formatting
- Document Templates
- Insert contents, page and section breaks
- Apply Character Formatting
- Clip Art and its usage
- Inserting Special Characters and Graphical Objects, Symbols, Illustrations

Spreadsheet:

- Set Page Breaks, Page Layout Options
- Manage Workbook Views
- Apply Cell and Range Names
- Auto Sum in Cells
- Calculate Data Across Worksheets
- Sort or Filter Worksheet or Table Data
- Create, Modify and Format Charts
- Create, modify and format spreadsheets using the full range of the software formatting features including conditional formatting for example Hide /unhide/freeze rows and columns
- Using multiple worksheets and linking cells
- Sharing worksheet data with other users

Presentation:

- Edit, format, group, arrange, animate graphical objects on a slide
- Insert a table, format tables, import tables from other applications
- Insert charts, modify a chart, import charts from other applications
- Preparing to deliver a presentation, review the content of a presentation, divide a presentation into sections, add transitions, add speaker notes, deliver a presentation
- Print a presentation,

Email Messaging:

- Work with the calendar, schedule an appointment, categorize and edit appointments, share and print a calendar
- Respond to a meeting request, propose a new meeting time, manage meetings
- Create & edit a task, note and a journal entry

Database:

- Understanding Core Database Concepts
- Creating Database Objects
- Manipulating Data
- Understanding Data Storage
- Administering a Database
- Requirements for Databases
- Building Tables
- Building Forms
- Creating and Managing Queries
- Designing Reports

Language:

One Optional Language from Japanese, Mandarin, French, German (example of Japanese included here) Japanese –Basic Hiragana, Katakana and Kanji (20 characters), Family, Telephonic and daily conversation, Letter Writing, Basic Shopping, Make invitations, etc.

Certificate Level- III

Digital Literacy:

- Understand IPR & copyright as they apply to computing
- Plagiarism
- Cyber Laws

Word Processing:

- Managing Lists – Sort, Renumber, Customize a List
- Apply a Page Border and Colour
- Adding a Watermark
- Sorting Table Data, Control Cell Layout , Perform Calculations in a Table
- Creating Customized Formats with Styles and Themes
- Create or Modify a Text Style
- Create a Custom List or Table Style
- Modifying Pictures & Picture Appearance Settings
- Wrap Text Around a Picture
- Insert and Format Screenshots in a Document
- Create Text Boxes and Pull Quotes
- Draw Shapes, Add WordArt and Other Special Effects to Text
- Create Complex Illustrations with Smart Art
- Controlling Text Flow, Paragraph Flow, Inserting Section Breaks, Columns

Spreadsheet:

- Insert and Modify Pictures and ClipArt
- Draw and Modify Shapes
- Illustrate Workflow Using Smart Art Graphics
- Layer and Group Graphic Objects
- Goal Seek
- Analyze Data with Logical and Lookup Functions
- Manage Themes
- Create and Use Templates
- Update Workbook Properties
- Creating and Editing Macros

Presentation:

- Customizing a design template, set up a slide master
- Create custom slide layouts, add headers and footers, modify the notes master, modify the handout master

E mail Messaging:

- Modify message settings, delivery options, change the message format, out of the office notification, create a contact group, insert a hyperlink
- Sort and filter messages using multiple criteria, manage junk email
- Set workdays and time in calendar, display an additional time zone, set availability options, create calendar groups, manage automatic meeting responses
- Record a journal entry automatically, manually, modify a journal entry
- Assign a task, reply to a task request, send a task update, track assigned tasks

Computer Networks:

- Network Infrastructure - Internet, intranet, and extranet.
- Understand the OSI model.
- TCP/IP
- Local area networks (LANs), Wide area networks (WANs).
- Network topologies and access methods.
- Network Hardware - switches.
- Routers, media types.
- Protocols and Services
- Understand IPv4 & IPv6.
- Addressing names resolution & networking services.

Web Design:

- Basics of web page design using HTML - Create and view the web pages in browser, HTML Basic tags, Image tags, Frames, Forms
- JavaScript and VBScript
- Microsoft Expression Web
- Web Site Design Scripting Tools
- Hypertext
- Authoring tools

Other IT courses:

- E- Commerce
- Project

Language:

One Optional Language from Japanese, Mandarin, French, German (example of Japanese included here) Japanese Hiragana, Katakana and Kanji (additional 40 characters), Family &friends, Meeting people, Directions, Travel, Asking for permissions, Neighbourhood, Verbs, etc.

Vocational Stream:

Certificate Level- IV

Word Processing:

- Templates for Document Creation
- Use the Mail Merge Feature including Envelopes and Labels
- Creating Macros and Automating Tasks
- Linking Word Documents to Data in an Excel Worksheet
- Send a Document Outline to Microsoft Office PowerPoint
- Save and Share a Document for Review, understanding Track Changes and Comments
- Comparing and Merging Document Changes

Spreadsheet:
- Adding hyperlinks
- Analyzing Data Using PivotTables and Pivot Charts
- Filter Data Using Slicers
- Protect Files
- Adding Comments to a cell
- Share a Workbook
- Set Revision Tracking Review Tracked Revisions
- Merge Workbooks
- Administer Digital Signatures
- Restrict Document Access

Presentation:

- Inserting and modifying smartart graphics to a presentation
- Add multimedia elements, customize slide component animations
- Customizing a slide show, annotate a presentation, create a presenter-independent slide show, set up a slide show to repeat automatically

E mail Messaging:

- Specify folder permissions, access another user's folder, send calendar information in an email message, delegate folder access to users
- Customizing the quick access toolbar, to-do bar and creating a folder home page
- Personalizing Email - apply stationery and themes, creating and modifying signatures, configuring email security settings
- Organizing items - group items, create search folders, apply conditional formatting
- Back up items, add data files to a mail profile, change data file settings

Software Development:

- Understanding Core Programming
- Understanding Object-Oriented Programming
- Understanding General Software Development
- Understanding Web Applications
- Understanding Desktop Applications

Web Development:

- Programming Web Applications
- Working with Data and Services
- Troubleshooting and Debugging Web Applications
- Working with Client-Side Scripting
- Configuring and Deploying Web Applications

Project:

- Projects

Language:

One Optional Language from Japanese, Mandarin, French, German (example of Japanese included here) Japanese – Hiragana, Katakana and Kanji, Clothing, Transportation, Adjectives, Reading short essays, Paragraph Writing, Opinions Conjunctions, etc.

Certificate Level- V

Word Processing:

- Co-author a Document
- Managing Document Versions
- Adding Reference- Book Marks, cross reference and Notes – foot and end notes
- Adding Hyperlinks
- Citations and a Bibliography
- Inserting Blank and Cover Pages, Index, Table of Figures, Table of Contents
- Create a Master Document
- Automatically Summarize a Document
- Securing a Document and setting a password, formatting and editing Restrictions
- Object Linking and embedding (OLE)
- Update a Document's Properties
- Remove Personal Information from a Document
- Add a Digital Signature to a Document
- Restrict Document Access
- Add Form Fields to a Document, Protecting and automating a Form
- Using XML in Word
- Tag an Existing Document
- Transform an XML Document

Spreadsheet:

- Trace Cells
- Troubleshoot Errors in Formulas
- Evaluate Formulas
- Create a Data List Outline
- Create a Trendline
- Create Sparklines
- Create Scenarios
- Perform What-If Analysis
- Working with Multiple Workbooks and linking cells in Different Workbooks
- Importing and Exporting Data
- Export Excel Data
- Publish a Worksheet to the Web and creating a Web Query
- Structuring Workbooks with XML
- Develop XML Maps, Import and Export XML Data

Presentation:
- Review a presentation, publish slides to a slide library, restrict access to a shared presentation, share a presentation
- Securing and distributing a presentation, broadcast a presentation, convert a presentation into a video
- Publish a presentation to other file formats, secure a presentation

E mail messaging:

- Forward contacts, edit an electronic business card, export contacts, perform a mail merge, link items to the business contact manager
- Save messages in alternate formats, archive messages, protect archives and other personal folders
- Creating a custom form
- Make folders available offline, configure remote procedure calls over HTTP, download selected messages, and publish calendar information

Server Administration Fundamentals:

- Understanding Server Installation, Roles
- Understanding Active Directory
- Storage & Server Performance Management and Server Maintenance

Windows Development Fundamentals:

- Understanding Windows Programming Basics
- Creating Windows Forms Applications
- Creating Windows Services Applications
- Accessing Data in a Windows Forms Application
- Deploying a Windows Application

Windows 7: Technology Specialist:

- Installing, Upgrading, and Migrating to Windows 7
- Configuring Disks and Device Drivers
- Configuring File Access and Printers on Windows 7 Client
- Configuring Network Connectivity & Wireless Network Connections
- Securing Windows 7 Desktops with UAC, Local Security Policies, EFS, and AppLocker
- Optimizing and Maintaining Windows 7 Client Computers
- Configuring Mobile Computing and Remote Access in Windows 7

Share point Fundamentals:

- Understanding, Installing and Assigning Service Applications
- Power Shell Basics
- Using the ULS Viewer
- FAST Search
- Backup Restore Disaster Recovery
- SharePoint Foundation

Security Fundamentals:

- Understanding Security Layers Principles, Physical, Wireless, Internet & Operating System Security
- User authentication, permissions, password, audit policies, encryption, malware,
- Network Security & dedicated firewalls.
- Network Access Protection (NAP), network isolation. Protocol security, client, e-mail & server protection.

Other IT Streams:

- Technical Writing
- Quality Assurance and Software Testing

Projects:
- Projects

Language:

One Optional Language from Japanese, Mandarin, French, German (example of Japanese included here) Japanese – Hiragana, Katakana and Additional characters of Kanji, Household items, Colours, Health and Illness, Nouns, Likes and Dislikes, etc.

Certificate Level- VI

Project Management:
- Creating a Project Plan.
- User-Controlled Scheduling
- Adding Tasks
- Resolving Common Scheduling Issues
- Adding Work Resources
- Adding Material and Cost Resources
- Defining a Calendar
- Viewing and Tracking Project Information Gantt Charts

SQL Server: Technology Specialist:
- Explain SQL Server 2008 R2 architecture, resources requirements and perform pre-checks of I/O subsystems
- Plan, install and configure SQL Server 2008 R2
- Backup and restore databases
- Import and export wizards and explain how they relate to SSIS
- Use BCP and BULK INSERT to import data
- Manage security
- Assign, configure fixed database roles and create and assign user defined database roles
- Configure and assign permissions

- Implement SQL Server 2008 R2 Audits
- Manage SQL Server 2008 R2 Agent and Jobs
- Configure database mails, alerts and notifications
- Maintain databases
- Configure SQL Profiler Traces and Use the Database Tuning Advisor
- Monitor data by using Dynamic Management Views
- Execute multi-server queries and configure a central management server
- Deploy a data-tier-application
- Troubleshoot common issues
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- SQL Server 2008, Implementation and Maintenance:
- Understand the product, its components, and basic configuration.
- Work with the data types supported by SQL Server.
- Design and implement tables and work with schemas.
- Design and implement views and partitioned views.
- Describe the concept of an index and determine the appropriate data type for indexes and composite index structures.
- Identify the appropriate table structures and implement clustered indexes and heaps.
- Describe and capture execution plans.
- Design and implement non-clustered indexes, covering indexes, and included columns.
- Design and implement stored procedures.
- Implement table types, table valued parameters, and the MERGE statement.

- Describe transactions, transaction isolation levels, and application design patterns for highly-concurrent applications.
- Design and implement T-SQL error handling and structured exception handling, scalar and table-valued functions, constraints, triggers.
- Describe and implement target use cases of SQL CLR integration, XML data and schema in SQL Server.
- Use FOR XML and XPath queries.
- Describe and use spatial data types in SQL Server.
- Implement and query full-text indexes.

Windows Server 2008 Active Directory, Configuring: Introducing Active Directory Domain Services (AD DS)

- Secure and Efficient Administration of Active Directory
- Manage Users & Groups
- Support Computer Accounts
- Implement a Group Policy Infrastructure
- Manage Enterprise Security and Configuration with Group Policy Settings
- Secure Administration
- Improve the Security of Authentication in an Active Directory Domain Services (AD DS) Domain
- Configure Domain Name System (DNS)
- Administer Active Directory Domain Services (AD DS) Domain Controllers
- Manage Sites and Active Directory Replication
- Directory Service Continuity
- Manage Multiple Domains and Forests

Configuring and Troubleshooting Identity and Access Solutions with Windows Server 2008 Active Directory:

- Explore Identity and Access (IDA) solutions.
- Deploy and Manage Active Directory Certificate Services (AD CS).
- Deploy and Manage Certificates.
- Configure Active Directory Lightweight Directory Services (AD LDS), Federation Services (AD FS), Rights Management Services (AD RMS).
- Maintain access management solutions.
- Troubleshoot IDA solutions

Designing Security for Microsoft Networks:

- Plan a framework for network security.
- Identify threats to network security.
- Analyze security risks.
- Design security for physical resources.
- Design security for computers.
- Design security for accounts and services.
- Design security for authentication.
- Design security for data.
- Design security for data transmission.
- Design security for network perimeters.
- Design an incident response procedure.
- Designing an acceptable use policy.
- Designing policies for managing networks.
- Designing an operations framework for managing security.

Windows Communication Foundation Development with Microsoft .NET Framework 4:

- Plan a framework for network security.
- Identify threats to network security.
- Analyze security risks.

- Design security for physical resources.
- Design security for computers.
- Design security for accounts and services.
- Design security for authentication.
- Design security for data.
- Design security for data transmission.
- Design security for network perimeters.
- Design an incident response procedure.
- Designing an acceptable use policy.
- Designing policies for managing networks.
- Designing an operations framework for managing security.

Accessing Data with Microsoft .NET Framework 4:
- Plan a framework for network security.
- Identify threats to network security.
- Analyze security risks.
- Design security for physical resources.
- Design security for computers.
- Design security for accounts and services.
- Design security for authentication.
- Design security for data.
- Design security for data transmission.
- Design security for network perimeters.
- Design an incident response procedure.
- Designing an acceptable use policy.
- Designing policies for managing networks.
- Designing an operations framework for managing security.

Windows Azure Solutions with Microsoft Visual Studio 2010:
- Understand cloud computing in its various forms and how Windows Azure fits in the cloud computing space.
- Understand the architecture of Azure.
- Explore the Azure SDK and DevFabric development environment.
- Develop applications for Azure and how that varies from "normal" .NET application development.
- Write and deploy a ASP.NET Web application (Web Role) to Azure.
- Explore Azure storage capability.
- Learn how to create and deploy background computational applications (Worker Role) in Azure.

Other IT Streams:
- Software Engineering
- Statistical Techniques
- Data Structures and Algorithm Design
- Project

Language:

One Optional Language from Japanese, Mandarin, French, German (example of Japanese included here)Japanese – Hiragana, Additional characters of Kanji, At the Bank, Post Office, Gift exchanges, Passive sentences, etc.

Certificate Level- VII

Troubleshooting and Supporting Windows 7 in the Enterprise Length:
- Describe the processes of establishing and using a troubleshooting methodology,
- Troubleshoot startup issues on a Windows 7 computer.
- Troubleshoot client-configuration failures and Group Policy object (GPO) application issues.
- Troubleshoot hardware device, device driver, and performance issues.
- Troubleshoot network and remote connectivity issues.
- Troubleshoot logon and resource access issues.
- Troubleshoot security system issues, such as Encrypting File Systems (EFS) BitLocker Drive Encryption, and file permissions.
- Troubleshoot operating system and applications issues

Windows Server 2008 Network Infrastructure, Configuring:

- Install and configure servers.
- Configure and troubleshoot DNS.
- Configure and manage WINS.
- Configure and troubleshoot DHCP.
- Configure and troubleshoot IPv6 TCP/IP.
- Configure and troubleshoot Routing and Remote Access.
- Install, configure, and troubleshoot the Network Policy Server Role service.
- Configure Network Access Protection.
- Configure IPsec.
- Monitor and troubleshoot IPsec.
- Configure and manage Distributed File System.
- Configure and manage storage technologies.
- Configure availability of network resources and content.
- Configure server security compliance.

Windows Server 2008 Applications Infrastructure, Configuring:

- Describe Microsoft Windows Server 2008 R2 installation and configuration options, and select an appropriate volume-licensing option for Windows Server 2008 R2.
- Deploy and configure a Windows Server 2008 R2 Server Core installation.
- Implement various Windows Server deployment technologies.
- Implement Windows 7 and Windows Server 2008 R2 deployments with Windows Deployment Services (WDS).
- Implement Windows 7 and Windows Server 2008 R2 deployments with Microsoft Deployment Toolkit 2010 (MDT 2010).
- Migrate earlier versions of Active Directory directory service to AD DS.
- Migrate file and print, and Web servers to Windows Server 2008 R2.
- Migrate remote infrastructure servers to support branch offices.
- Virtualize workloads by migrating physical servers to guests in Microsoft Hyper-V Server 2008 R2.

Configuring and Troubleshooting Windows Server 2008 Terminal Services:

- Install and configure the TS role.
- Configure TS settings.
- Identify the appropriate licensing scope and configure forest, domain, and workgroup licensing.
- Identify when to use the per-user and per-device licensing modes.
- Install the TS Licensing Role.
- Configure TS licensing for per-user and device licenses.
- Manage the licensing lifecycle.
- Configure TS connection properties using TS console and Group Policy.
- Troubleshoot TS connection properties for a single user and multiple users.
- Identify the considerations for the types of applications that can be installed in a TS environment.
- Install applications on TS.
- Configure TS Web Access to make TS RemoteApp programs available through a Web site.
- Configure TS Easy Print.
- Install and configure TS Web Access role service.
- Configure a TS session broker for a load-balanced TS farm.
- Configure TS Gateway properties
- Monitor active connections using TS Gateway console.
- Troubleshoot a TS Gateway connectivity issue.
- Manage TS connections to ensure availability of the TS.
- Resolve client connectivity issues by verifying end-user configuration using Remote Desktop Connection (RDC).
- Monitor TS connections to determine when to force client disconnect.
- Identify monitoring methods for TS services role.
- Configure resource allocation policies using WSRM based on the environment.
- Monitor WSRM performance using the WSRM Monitoring TS tool

Configuring and Troubleshooting Internet Information Services in Windows Server 2008:
Describe the IIS 7.0 modular architecture and workloads.
- Configure an IIS 7.0 Web Server.
- Secure Web sites and Web application pools.
- Troubleshoot Web servers, sites and applications.
- Use command line tools and scripting tools.
- Tune IIS to improve performance.
- Maintain Web sites.
- Enable integrated technologies to extend IIS 7.0 functionality

Windows Applications Development with Microsoft .NET Framework 4:
- Understand how varying business requirements influence the design decisions when planning a Windows Client application.
- Understand the new features of Visual Studio 2010 WPF

- Design and build a UI that provides the expected end-user experience and UI functionality
- Create a consistent and manageable user interface
- Understand best practices when testing and learn how to debug their applications
- Use advanced exception handling in Windows Client application scenarios
- Implement advanced data binding scenarios
- Use coding techniques to improve the responsiveness of their applications
- Implement localization, user assistance, and accessibility features within an application
- Understand the basics of graphics in WPF
- Customize controls and introduce students to custom controls
- Implement application behaviors based on user actions or events by using attached properties and Expression Blend behaviors
- Develop data visualization within their applications in a manner that enables the application user to drill down into data visually
- Manage application state and settings throughout the application lifecycle
- Deploy their applications using the various methods supported by Visual Studio 2010

Web Applications Development with Microsoft .NET Framework 4:

- Describe the underlying architecture and design of a Web application.
- Apply best practices and make appropriate trade-offs based on business requirements when designing a Web application.
- Develop MVC models, controllers, views.
- Optimize the design of a Web application for discoverability by search engines.
- Write server-side code for Web Forms.
- Optimize data management for Web Forms.
- Ensure quality by debugging, unit testing, and refactoring.
- Secure a Web application.
- Apply Master Pages and CSS for a consistent application UI.
- Develop client-side scripts and services for a responsive, rich, and interactive UI.
- Implement advanced AJAX in a Web application.
- Deploy a Web application.
- Develop a Web application by using Silver light.
- Explore ASP.NET Web applications in Microsoft Visual Studio
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Introduction to Web Development with Microsoft Visual Studio 2010:
- Create Web applications by using Microsoft Visual Studio 2010 and Microsoft .NET–based languages.
- Create a Microsoft ASP.NET Web Form.
- Add functionality to a Microsoft ASP.NET Web Form.
- Implement master pages and user controls.
- Validate user input.
- Debug Microsoft ASP.NET Web applications.
- Manage data in an ASP.NET 3.5 Web application.
- Manage data access tasks by using LINQ.
- Manage data by using ASP.NET Dynamic Data.

- Create a Microsoft ASP.NET AJAX application.
- Consume and Windows Communication Foundation (WCF) services.
- Manage state in Web applications.
- Configure and deploy a Microsoft ASP.NET Web application.
- Secure a Microsoft ASP.NET Web application.
- Implement new technologies supported by Visual Studio 2010 for Web development.

Web Development Skills from ASP to Microsoft ASP:
- Differences between ASP and ASP.NET.
- Creating an ASP.NET Web application by using Microsoft Visual Studio .NET.
- Creating an ASP.NET Web Application UI.
- Use the trace feature of ASP.NET to obtain information about executed requests.
- Use the Visual Studio .NET debugger to debug ASP.NET Web applications.
- Access databases in an ASP.NET Web application by using Microsoft ADO.NET.
- Creating and calling a COM object from an ASP.NET Web page.
- Creating an XML Web service by using Visual Studio .NET.
- Creating client code that can create and call a remote XML Web service.
- List server and client-side state management techniques and how ASP.NET improves state management.
- Use the ASP.NET Application object to track data that is associated with an ASP.NET Web application, with an individual user session
- Use the ASP.NET Http Cookie object to store client-side data.
- Implement Forms-based authentication in an ASP.NET Web application.
- Prepare an ASP.NET Web application for deployment.
- Access and display Extensible Markup Language (XML) data in an ASP.NET Web

Microsoft Dynamics CRM 2011 Customization and Configuration:
- Design and implement strategies for the creation of Business Units and Security Roles
- Create and configure Microsoft Dynamics CRM Users and Teams
- Describe the principles of customizing the system
- Create and configure fields for both custom and system entities
- Create and configure custom entities, including standard and activity entities
- Design, create and configure relationships between entities
- Create and configure Views, Charts and Forms for both system and custom entities
- Implement Field Security in Microsoft Dynamics CRM
- Configure and monitor audition on Microsoft Dynamics CRM components
- Design, create and configure Solutions in Microsoft Dynamics CRM; implementing both managed and unmanaged Solutions

Service Management in Microsoft Dynamics CRM 2011:
- Use some of the most common service management applications of Queues and Contracts.
- Work with cases in the case grid.
- Create and manage contract templates and contracts, Add contract lines and Associate contracts with cases.
- Create, activate and deactivate, and delete Knowledge Base article templates.

- Search articles from within a case record and utilize articles to resolve cases.
- Create, manage and work with Teams.
- Define steps involved in creating and managing queues, Work with queue items.
- Build personal and system charts and dashboards to provide insight into important service management information.

Other IT Streams:
Research Methodology & Statistical Quantitative Methods, Artificial Intelligence and Knowledge Management, Parallel Computing & HPC
Project

Language:
One Optional Language from Japanese, Mandarin, French, German (example of Japanese included here) Japanese – Hiragana, Additional characters of Kanji, Short forms in informal speech, Explain how to do something, Describe situations, Reading and Writing Essays, Home Delivery, Japanese Film Viewing and discussion